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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 08/477,704 | 06/07/1995 | MITJA V. HINDERKS | RCH-22164-F- | 6330 |
| 7590 | 06/09/2004 | | EXAMINER | |
| MITJI HINDERKS 1015 GAYLEY AVENUE NO 1228 LOS ANGELES, CA 90024 | | | KAMEN, NOAH P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3747 | |

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 08/477,704 | HINDERKS, MITJA V. | |
| | Examiner | Art Unit | |
| | Noah Kamen | 3747 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 4/12/04.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 390-396,398-477,479-493 and 495-554 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 390,392,394,395,431,435,443,445-451,459,464,466,468 and 469 is/are allowed.
- 6) Claim(s) See Continuation Sheet is/are rejected.
- 7) Claim(s) 510,512,516,518-522,532,534,547 and 551 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Continuation of Disposition of Claims: Claims rejected are 391,393,396,398-430,432-434,436-442,444,452-458,460-463,465,467,470-477,479-509,511,513-515,517,523-531,533,535-546,548-550 and 552-554.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 467, 498, and 536 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an **abstract** of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a **separate sheet** within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the

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printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The continuity data of all previous patent applications must be inserted at the top of page 1.

Claim Objections

In claims 429, 430, 469, 470, 507, 508, 549, and 550, before "portion" insert - - a - -.

Note, the claims should be numbered according to their dependency. The claim "tree" must have each branch numbered sequentially, not jumping around. For example, claims 393-395 are properly ordered; however, claims 398 and 400 are improperly placed because claims 396 and 399 jump back to depending on claim 390. The examiner at allowance will renumber these claims, but in the mean time, their examination is **very cumbersome** because of the discontinuities. The applicant is encouraged to do the renumbering.

Claim Rejections - 35 USC § 112

Claims 390-396, 398-430, 432-434, 436-442, 444, 452-455, 457, 458, 460-463, 465, 467, 470-508, 536-539, 552-554 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The applicant has provided the examiner with the specification on floppy disks. The specification fails to provide CLEAR antecedent basis for a few claim limitations. It is not incumbent upon the examiner to go through all 162 claims to ensure antecedent basis. The following are merely a few examples of lack of antecedent basis.

There is no antecedent basis in the specification for "structure which defines a volume substantially surrounding said cylinder...by said device" in claims 390,436, 438,471 and 518;

B) Claims 392, 417-420, 432, 456-459, 473, 498-501, 536-539, are merely a catalog of parts. The various elements must all be linked structurally and/or functionally together. The path and guide of claims 421,460,462,46 must be related to the cylinder and piston.

C) Claim 399 is identical to claim 396, hence should be canceled. Applicant is advised to check for and cancel identical claims. See also claim 480. Claim 554 appears to be redundant with respect to claim 509.

D) In regard to claims 395, 435, 476, a "means", which by definition is structure, cannot include fluids; the fluids merely worked by the structure.

E) In claim 471, the wavelike surfaces are only parallel in finite positions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 509, 515, 527, 540, 541, 544, and 548 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie (1777007) in view of Nallinger (3112810) .

Mackenzie shows a rotating/reciprocating component 43 with passages 45, 46, and a single sinusoidal path/depression 51 with a truncated roller 49, a cylinder 44, a output shaft with splines. However, no housing of insulating material is shown. Nallinger shows a insulating housing 7, albeit for noise around an engine which inherently reduces heat loss. It would have

been obvious to one of ordinary skill in the art to place the housing of Nallinger around Mackenzie to reduce noise.

Claims 511, 523, 542, 543, and 545, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie (1777007) in view of Nallinger (3112810) as applied to claim 509 above, and further in view of Berger (3503716). It would have been obvious to one of ordinary skill in the art to include catalytic filamentary material in any of the exhaust passages of Mackenzie to reduce pollution in view of Berger. In regard to claim 523, to multiply parts for multiplied effects is a well known expedient; therefore, to include more noise insulation (with inherently more heat insulation) where desired would have been obvious to one of ordinary skill in the art.

Claims 513, 514, and 517 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie (1777007) in view of Nallinger (3112810) and Berger as applied to claim 511 above, and further in view of Waeber (2310269). It would have been obvious to one of ordinary skill in the art to combine engines, including that of Mackenzie, for more power in view of the teaching of Waeber. While only one type of engine is shown, the principle is deemed extendable to engines of any type. In regard to claim, the second means is so broad as to read on the well-known turbocharger. Mixing and matches engines of any type for reasons of economy, reliability, and power profiles would have been an obvious expedient to one of ordinary skill in the art.

Claims 509, 528-531, 536, and 554 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrough (2473936) in view of Nallinger (3112810). Burrough shows a rotating/reciprocating component 13 and a single sinusoidal path/depression 14 and an output shaft with splines 17. There are tubular bolts inherently under tension for securing portions of the cylinder and component together. However, no housing of insulating material is shown.

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Nallinger shows a insulating housing 7, albeit for noise around an engine which inherently reduces heat loss. It would have been obvious to one of ordinary skill in the art to place the housing of Nallinger around Burrough to reduce noise.

Claims 524, 533, and 535 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie (1777007) in view of Nallinger (3112810) and Berger as applied to claim 511 above, and further in view of Goldsborough (1812870). It would have been obvious to one of ordinary skill in the art to make the piston and cylinder of Mackenzie out of ceramics for higher operating efficiencies in view of Goldsborough. In regard to claim 535, the spark plugs read on the electric circuit.

Claims 525 and 526 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie (1777007) in view of Nallinger (3112810) as applied to claim 509 above, and further in view of Goldsborough (1812870). It would have been obvious to one of ordinary skill in the art to make the piston and cylinder of Mackenzie out of ceramics for higher operating efficiencies in view of Goldsborough. In regard to claims, the spark plugs read on the electric circuit.

Claims 509 and 549 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd (3667876) in view of Nallinger (3112810) .

Boyd shows a rotating/reciprocating component 72 with a portion at 83 that penetrates cylinder 64. However, no housing of insulating material is shown. Nallinger shows a insulating housing 7, albeit for noise around an engine which inherently reduces heat loss. It would have been obvious to one of ordinary skill in the art to place the housing of Nallinger around Mackenzie to reduce noise.

Claims 511 and 550 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd (3667876) in view of Nallinger (3112810) as applied to claim 509 above, and further in view of Berger (3503716). It would have been obvious to one of ordinary skill in the art to

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include catalytic filamentary material in any of the exhaust passages of Mackenzie to reduce pollution in view of Berger.

Allowable Subject Matter

Claims 390-396, 398-430, 432-434, 436-442, 444, 452-458, 460-463, 465, 467, 470-477, 479-493, 495-508, 537-539, 546, 552, and 553 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 537-539 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 390, 392, 394, 395, 397, 431, 435, 443, 445-451, 459, 464, 466, 468, 469, are allowed.

Claims 510, 512, 516, 518-522, 532, 534, 547, and 551 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noah Kamen whose telephone number is 703 308 1945. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Noah Kamen
Primary Examiner
Art Unit 3747

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